

## **CLAIMS:**

1. A conduit for a breathing circuit including heating means located within said conduit, said heating means comprising an elongate heating element covered with an inner electrical insulating layer and at least partially covered with an outer hydrophilic layer, there being no means for direct supply of water or fluid to said hydrophilic layer from outside said conduit.
2. A conduit as claimed in claim 1, wherein said hydrophilic layer is formed so as to absorb water due to its structure.
3. A conduit as claimed in claim 2 wherein said heating means lies freely in said conduit to settle over at least some of its length at low points in said conduit where condensed water vapour may collect.
4. A conduit as claimed in claim 2 wherein said conduit is an expiratory conduit and said heating means is located in an expiratory flow path of said conduit and at least a length of said conduit has a conduit wall wherein at least a region of said conduit wall is of a breathable material.
5. A conduit as claimed in claim 4 wherein said at least a region is or are distributed over said length of said conduit.
6. A conduit as claimed in claim 3 wherein said conduit is an expiratory conduit and said heating means is located in an expiratory flow path of said conduit and at least a length of said conduit has a conduit wall wherein at least a region of said conduit wall is of a breathable material.
7. A conduit as claimed in claim 6 wherein said at least a region is or are distributed over said length of said conduit.

8. A conduit as claimed in claim 1, wherein said hydrophilic layer is a braided sheath.
9. A conduit is claimed in claim 2, wherein said hydrophilic layer is a braided sheath.
10. A conduit is claimed in claim 3, wherein said hydrophilic layer is a braided sheath.
11. A conduit is claimed in claim 4, wherein said hydrophilic layer is a braided sheath.
12. A breathing circuit as claimed in claim 1, wherein said breathing circuit is a co-axial breathing circuit including an inner conduit and an outer conduit, the inner conduit located within the outer conduit, such that one of an inspiratory or expiratory flow paths are provided within the inner conduit and the other of the inspiratory or expiratory flow paths is provided between the inner conduit and the outer conduit and at least a region of the wall of said inner conduit is of a breathable material.